

INTERNATIONAL SEARCH REPORT

International: icaltion No
PCT/IB US/03992

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04B7/005 H04L27/26 H04L1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04B H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>"WIND-FLEX: A flexible radio interface architecture for short-range high-speed wireless networking"</p> <p>WIND-FLEX WHITE PAPER V32.DOC, 'Online! 20 May 2002 (2002-05-20), pages 1-12, XP002266998</p> <p>Retrieved from the Internet: <URL:http://www.vtt.fi/ele/research/els/projects/windflex.htm> 'retrieved on 2004-01-14! page 5, Baseband architecture page 6</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	<p>1,8, 10-12, 15-20</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

15 January 2004

Date of mailing of the international search report

30/01/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Moreno, M

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ROHLING H ET AL: "Adaptive coding and modulation in an OFDM-TDMA communication system" VEHICULAR TECHNOLOGY CONFERENCE, 18 - 21 May 1998, pages 773-776, XP010288041 IEEE, NEW YORK, USA ISBN: 0-7803-4320-4 page 774, column 2, last paragraph page 774, column 1, last paragraph ---	1,17-20
T	MORENA MINTO ET AL.: "Minimum transmission power algorithm for OFDM-based flexible systems" MESA PROJECT WORKSHOP, 'Online! 12 - 13 September 2002, pages 1-4, XP002266999 Retrieved from the Internet: <URL:http://www.projectmesa.org/ftp/TSG_SY S/Workshops/01_Broadband_Access_Sept2002/A ccompanying_papers/Cefriel-Philips> 'retrieved on 2004-01-14! the whole document ---	1-20
A	US 6 385 462 B1 (CLASSON BRIAN KEITH ET AL) 7 May 2002 (2002-05-07) column 5, line 21 - line 31 column 7, line 5 - line 33 column 10, line 27 - line 30 ---	1-4
A	EP 0 869 647 A (LUCENT TECHNOLOGIES INC) 7 October 1998 (1998-10-07) page 2, line 26 - line 45 page 3, line 24 - line 44 page 6, line 36 - line 42 ---	1-8
A	US 6 262 994 B1 (GREUBEL GERHARD ET AL) 17 July 2001 (2001-07-17) column 1, line 19 - line 20 column 1, line 32 - line 41 ---	1-4,13, 14
A	US 2002/044610 A1 (JONES DAVID) 18 April 2002 (2002-04-18) page 8, column 2, last paragraph -page 9, column 1, paragraph 2 -----	1-4

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

The last step of claim 5: "f) providing Nopt and minimum TX power parameters as output " attempts to define the subject-matter in terms of the result to be achieved, rendering the claim unclear (Art. 6 PCT). In this instance, however, it appears possible to define the subject-matter in more concrete terms, viz. in terms of how these parameters are provided. Consequently, claim 5 has been searched considering that the minimum transmission power parameters are provided by the method claimed in claim 2. This interpretation of claim 5 is supported in the description (page 7, lines 32-34).

Considering other possible algorithms would render a meaningful search over the whole of the claimed scope impossible. Furthermore, it would give a broader scope than justified by the description and drawings (Art. 6 PCT) and a possible objection of lack of unity of the invention (R. 13.1 PCT).

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 03/03992

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 03/03992

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6385462	B1	07-05-2002	AU	5301401 A		11-12-2001
			WO	0193471 A1		06-12-2001
EP 0869647	A	07-10-1998	US	6175550 B1		16-01-2001
			DE	69806670 D1		29-08-2002
			DE	69806670 T2		27-02-2003
			EP	0869647 A2		07-10-1998
			JP	10303849 A		13-11-1998
US 6262994	B1	17-07-2001	DE	19651593 A1		18-06-1998
			EP	0848515 A2		17-06-1998
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			AU	2196600 A		31-07-2000
			EP	1142249 A1		10-10-2001
			WO	0039977 A1		06-07-2000